

We claim:

1. An azeotrope-like composition comprising:

- (a) hexafluoropropylene dimer; and
- (b) a hydrocarbon or a hydrofluorocarbon;

wherein said composition is selected from the group consisting of:

- (i) compositions consisting essentially of about 2 to about 99 weight percent hexafluoropropylene dimer and about 1 to about 98 weight percent cyclopentane that boil below about 47° C at about 760 torr;
- (ii) compositions consisting essentially of about 1 to about 90 weight percent hexafluoropropylene dimer and about 10 to about 99 weight percent isopentane that boil below about 27.5° C at about 760 torr; and
- (iii) compositions consisting essentially of about 1 to about 90 weight percent hexafluoropropylene dimer and about 10 to about 99 weight percent 1,1,1,3,3-pentafluorobutane that boil below about 40° C at about 760 torr.

2. An azeotrope-like composition according to claim 1 comprising:

- (a) hexafluoropropylene dimer; and
- (b) a hydrocarbon or a hydrofluorocarbon;

wherein said composition is selected from the group consisting of:

- (i) compositions consisting essentially of about 5 to about 98 weight percent hexafluoropropylene dimer and about 2 to about 95 weight percent cyclopentane that boil below about 44° C at about 760 torr;
- (ii) compositions consisting essentially of about 5 to about 88 weight percent hexafluoropropylene dimer and about 12 to about 95 weight percent isopentane that boil below about 27° C at about 760 torr; and
- (iii) compositions consisting essentially of about 5 to about 87 weight percent hexafluoropropylene dimer and about 95 to about 13 weight

percent 1,1,1,3,3-pentafluorobutane that boil below about 39° C at about 760 torr.

3. An azeotrope-like composition according to claim 1 consisting essentially of:

- (a) hexafluoropropylene dimer; and
- (b) a hydrocarbon or a hydrofluorocarbon;

wherein said composition is selected from the group consisting of:

- (i) compositions consisting essentially of about 12 to about 96 weight percent hexafluoropropylene dimer and about 4 to about 88 weight percent cyclopentane that boil below about 40° C at about 760 torr;
- (ii) compositions consisting essentially of about 11 to about 85 weight percent hexafluoropropylene dimer and about 15 to about 89 weight percent isopentane that boil below about 26° C at about 760 torr; and
- (iii) compositions consisting essentially of about 10 to about 84 weight percent hexafluoropropylene dimer and about 16 to about 90 weight percent 1,1,1,3,3-pentafluorobutane that boil below about 38° C at about 760 torr.

4. An azeotrope composition consisting essentially of:

- (a) hexafluoropropylene dimer; and
- (b) a hydrocarbon or a hydrofluorocarbon;

wherein said composition is selected from the group consisting of:

- (i) compositions consisting essentially of about 77.4 weight percent hexafluoropropylene dimer and about 22.6 weight percent cyclopentane that boil at about 32° C at about 729 torr;
- (ii) compositions consisting essentially of about 67.5 weight percent hexafluoropropylene dimer and about 32.5 weight percent n-pentane that boil at about 27° C at about 731 torr;
- (iii) compositions consisting essentially of about 58.6 weight percent hexafluoropropylene dimer and about 41.4 weight percent isopentane that boil at about 22° C at about 735 torr; and

- (iv) compositions consisting essentially of about 54.4 weight percent hexafluoropropylene dimer and about 45.6 weight percent 1,1,1,3,3-pentafluorobutane that boil at about 34° C at about 730 torr.

5      5.      A process for preparing polymeric foam comprising vaporizing an azeotrope-like composition comprising hexafluoropropylene dimer and a hydrocarbon or a hydrofluorocarbon as provided in claim 1 in the presence of at least one foamable polymer or the precursors of at least one foamable polymer.

10      6.      A process according to claim 5 wherein said precursors of said foamable polymer comprise one or more polyols and one or more polyisocyanates.

7.      A process according to claim 5 wherein said precursors of said foamable polymer comprise one or more phenols and one or more aldehydes.

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8.      A process according to claim 6 wherein a surfactant is added to said mixture.

9.      A process according to claim 6 further comprising adding the azeotrope-like composition to a polyol to form a first mixture and blending said first mixture with an isocyanate.

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10.      A process according to claim 6 further comprising adding the azeotrope-like composition to an isocyanate to form a first mixture and blending said first mixture with a polyol.

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11.      A process according to claim 6 further comprising adding hexafluoropropylene dimer to a polyol to form a pre-mixture, adding a hydrocarbon or a hydrofluorocarbon as provided in claim 1 to said pre-mixture, and blending the resulting mixture with an isocyanate.

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12.      A process according to claim 6 further comprising adding hexafluoropropylene dimer to an isocyanate to form a pre-mixture, adding a hydrocarbon or a

hydrofluorocarbon as provided in claim 1 to said pre-mixture, and blending the resulting mixture with a polyol.

5 13. A process according to claim 6 further comprising adding hexafluoropropylene dimer to a polyol to form a first pre-mixture, adding a hydrocarbon or hydrofluorocarbon as provided in claim 1 to an isocyanate to form a second pre-mixture and blending said first pre-mixture with said second pre-mixture.

10 14. A process according to claim 6 further comprising adding hexafluoropropylene dimer to an isocyanate to form a first pre-mixture, adding a hydrocarbon or hydrofluorocarbon as provided in claim 1 to a polyol to form a second pre-mixture and blending said first pre-mixture with said second pre-mixture.

15 15. A process according to claim 7 further comprising adding a surfactant to said mixture.

20 16. A process according to claim 7 further comprising adding the azeotrope-like composition to a phenol to form a first mixture and blending said first mixture with an aldehyde.

17. A process according to claim 7 further comprising adding the azeotrope-like composition to an aldehyde to form a first mixture and blending said first mixture with a phenol.

25 18. A process according to claim 7 further comprising adding hexafluoropropylene dimer to a phenol to form a pre-mixture, adding a hydrocarbon or a hydrofluorocarbon as provided in claim 1 to said pre-mixture, and blending the resulting mixture with an aldehyde.

30 19. A process according to claim 7 further comprising adding hexafluoropropylene dimer to an aldehyde to form a pre-mixture, adding a hydrocarbon or a hydrofluorocarbon

as provided in claim 1 to said pre-mixture, and blending the resulting mixture with a phenol.

5 20. A process according to claim 7 further comprising adding hexafluoropropylene dimer to a phenol to form a first pre-mixture, adding a hydrocarbon or hydrofluorocarbon as provided in claim 1 to an aldehyde to form a second pre-mixture and blending said first pre-mixture with said second pre-mixture.

10 21. A process according to claim 7 further comprising adding hexafluoropropylene dimer to an aldehyde to form a first pre-mixture, adding a hydrocarbon or hydrofluorocarbon as provided in claim 1 to a phenol to form a second pre-mixture and blending said first pre-mixture with said second pre-mixture.

15 22. A process according to claim 5 further comprising forming the azeotrope-like composition as a solution prior to vaporizing said azeotrope-like composition in the presence said foamable polymer or said precursors of at least one foamable polymer.

23. A process according to claim 6 wherein a catalyst is added to said mixture.

20 24. A process according to claim 7 wherein a catalyst is added to said mixture.

25. A polymeric foam prepared by the process of claim 5.

25 26. An article comprising the foam of claim 25.

30 27. A process for preparing polymeric foam comprising vaporizing an azeotropic composition comprising hexafluoropropylene dimer and a hydrocarbon or a hydrofluorocarbon as provided in claim 4 in the presence of at least one foamable polymer or the precursors of at least one foamable polymer.